

APPENDIX B: THE PENDING CLAIMS

1. (Twice Amended) A non-toxic *Pseudomonas* exotoxin A-like ("PE-like") chimeric immunogen comprising: (1) a cell recognition domain of between 10 and 1500 amino acids that binds to a cell surface receptor; (2) a translocation domain comprising an amino acid sequence at least 60% identical to a sequence of PE domain II and capable of effecting translocation to a cell cytosol; (3) an amino acid sequence encoding an endoplasmic reticulum ("ER") retention domain that comprises an ER retention sequence; (4) an epitope presenting domain located at the PE Ib domain location of PE and having one cysteine to cysteine disulfide bonded loop and comprising an amino acid sequence of between 5 and 350 amino acids that encodes an epitope that is non-native to PE domain Ib and is located within the loop, and wherein the epitope is from a pathogen.

2. The immunogen of claim 1, wherein the cell recognition domain is domain Ia of PE, the translocation domain is domain II of PE, and the ER retention domain is domain III of PE, wherein domain III lacks ADP ribosylation activity.

3. The immunogen of claim 1 wherein the cell recognition domain is domain Ia of PE.

7. The immunogen of claim 1 wherein the translocation domain comprises amino acids 280 to 364 of SEQ ID NO:2.

8. The immunogen of claim 1 wherein the translocation domain is domain II of PE.

12. The immunogen of claim 1 wherein the ER retention domain is domain III of PE, wherein domain III lacks ADP ribosylation activity.

13. The immunogen of claim 1 wherein the ER retention sequence comprises REDLK (SEQ ID NO:11), REDL (SEQ ID NO:12) or KDEL (SEQ ID NO:13).

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